



Support News 

September 5, 1994

Volume I, Issue 10

**“Get Off the Highway
and Into the Alley™”**

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Inside Information...

About the Information Alley

The Information Alley™ is a publication of Apple Computer, Inc., Support Information Services. The goal of the Information Alley is to help you get full use of your Apple computers, peripherals, and software.

Where to Find the Information Alley

The Alley is available to anyone through a variety of online services and Internet list server capability. For a complete list of where to find the Alley, call the Apple Fax line at 1-800-505-0171 and request document #20720. You can also get an index to back issues by requesting document #20719. Optionally, you can search the Technical Information Library; use "information alley" as the search string. Select article title Information Alley: Online Services it is Posted To or article title Information Alley: Index of Past Issues).

Submissions and Letters

We welcome articles that help Apple computer users become more knowledgeable about the functionality of their systems, explain or illustrate complex features or functions, or that describe technical tips or techniques. Send submissions to:

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We also welcome letters to the editor and suggestions for future articles. Please send all letters to the preceding address.

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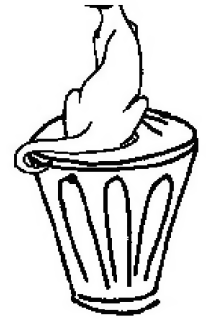
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Helping You Find the Information Alley



By Janet Christian

Where to Find the Information Alley

Due to the quantity, we no longer list all online locations in each issue where the Information Alley is located. Starting with this issue, however, we have added information to the Inside Information... page (page 2) that indicates where to find the master document that includes this ever-growing list of locations. The master online list, and the index to all past issues, are maintained in the Technical Information Library and are also available through the Apple Fax line (800) 505-0171. These two documents are updated every two weeks to reflect the most recent information.

Search the Technical Information Library (see page 13 for a description of the TIL, a list of locations where it is available, and how to search it) with a search string of "information alley" to locate these two articles. The document numbers for these documents on the Apple Fax service are: 20720 – Where to Find the Information Alley and 20719 Information Alley Back Issue Index.

Information Alley on eWorld

eWorld includes the Common Ground MiniViewer as a free, downloadable file. Therefore, we are now uploading a copy of the Information Alley to eWorld in Common Ground format, but without the imbedded MiniViewer (along with the DOS- and Macintosh-version imbedded MiniViewer copies we now upload). You can download the

standalone MiniViewer to your local system and use it to read this new version of the Information Alley.

You can find the Common Ground MiniViewer, along with all three versions of each issue of the Information Alley in this path:

Computer Center → Apple Customer Center → Quick Answers → Tips and Tools from the Information Alley
(Shortcut to Quick Answers is **tech info**)

New, Improved Information Alley Phone Line

The Information Alley phone line (512/908-8876) now includes a simple phone tree to help us better respond to your questions and comments.

- Option 1 provides you with information on how to obtain an index of back issues or a list of locations where the Information Alley is available. (These are the same documents described at the beginning of this column.)
- Option 2 provides you with information about reprinting articles from the Information Alley.
- Option 3 tells you how to submit an article for publication in the Information Alley.
- Option 4 lets you leave a message for the Information Alley staff.

We hope you find this new arrangement convenient and easy to use. 🍏

Common StyleWriter Problems

By Wayne Brissette

This article describes some of the more common problems and solutions regarding the StyleWriter and StyleWriter II printers.



Problem: Document Changes Font Halfway Down the Page.

This is caused by low system memory available. This is a common situation when using products like Microsoft Word 5.0, which uses 2MB on a 4MB Macintosh.

Solution: Try printing with background printing off. A better solution is upgrading the amount of RAM in your Macintosh.

Problem: Cannot find the StyleWriter or StyleWriter II printer in the Chooser.

Check in Extensions (System 7) or the System Folder (System 6) and make sure that the Stylewriter II and the Stylewriter drivers are present.

Solution: If the drivers are not in the proper location, move them into the

proper location. Otherwise, reinstall the printer software.

Problem: Any error message mentioning the ready button.

This indicates that the wrong printer driver is selected or the wrong type of cable is being used.

Solution: Use the select the proper printer in the Chooser. Use a Macintosh serial cable, not a PhoneNet cable.

Problem: Error message states: Stylewriter is out of paper or paper in printer is different size than paper selected.

This indicates that the wrong printer driver is selected, the wrong type of cable is being used, or there is a problem with the printer cable.

Solution: Use the select the proper printer in the Chooser. If you have Global Village fax software installed, make sure that you don't have GlobalFax selected instead of the proper StyleWriter driver. Use a Macintosh serial cable, not a PhoneNet cable.

Problem: Text prints one line on top of the other, all in one column.

This problem only occurs with certain versions of Microsoft Word 4.0 software. Microsoft has written a special TrueType INIT that has to be used with these versions of Microsoft Word.

Solution: Contact Microsoft for the INIT or upgrade to a later version of Microsoft Word.

Problem: Grayscale printing option is dimmed.

Grayscale printing requires a Macintosh that has 32-bit color Quickdraw in ROM. The following Macintosh computers do

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not and thus cannot access grayscale printing:

- Macintosh Plus
- Macintosh SE
- Macintosh Classic
- Macintosh Portable

Solution: None

Problem: Background printing is dimmed.

This only happens with System 6 when using Finder instead of MultiFinder.

Solution: Switch to MultiFinder and restart.

Problem: The StyleWriter II feeds all paper through the printer either all at once or one sheet after another.

There is a release bar inside the printer that when pressed, releases the lock that keeps the paper feeder in the proper position. The release bar is pressed by pushing the paper down into the printer too far. The release bar can also be inadvertently tripped by putting too much paper into the tray.

Solution: Remove the paper and turn the printer off and on again without holding down any buttons to reset the printer. Reduce the paper stack to under 1/2-in.

Problem: The mouse doesn't move smoothly on a Macintosh Plus or 68000 Macintosh with background printing.

This is a problem with the 68000 Macintosh computers and background printing.

Solution: Turn off background printing.

Problem: Sometimes, when installing StyleWriter software on a System 6.0.7 machine, the installer hangs and simply doesn't work.

Solution: Drag-copy the StyleWriter driver, the System 6.x Chooser and the TrueType init into the System Folder,

then use Font/DA Mover to install the fonts.

Problem: Structured drawing programs and desktop publishing programs don't print out properly on the StyleWriter and StyleWriter II.

Programs like Quark Xpress, PageMaker, Illustrator, FreeHand don't properly handle several things like letter kerning, line spacing, rotated text looks like bitmaps, and out of place graphics. This is because these programs rely on PostScript code to handle many of these features. The StyleWriter and StyleWriter II are QuickDraw printers, not PostScript printers.

Solution: Use a PostScript printer. 🍏

System 7.5 Clean Install Shortcut

By Mark Hansen

To perform a clean install of System 7.5, without having to remove the Finder or System file and renaming the System folder, launch the Installer as normal. Pass through the **Welcome to System 7.5** dialog box. When the **Installer** window appears, press the **⌘-Shift-K** keys simultaneously.

You are presented with a small dialog box with two selections:

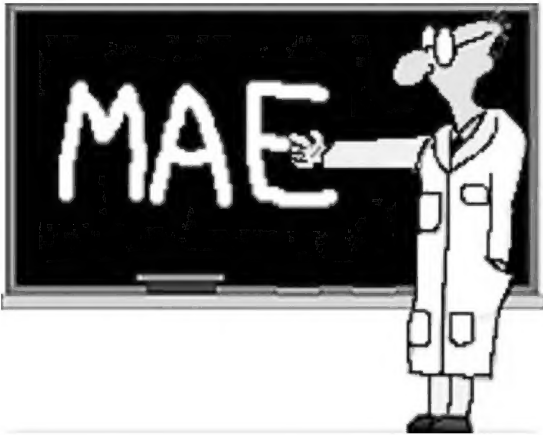
- **Update existing system folder**
- **Install new system folder**

For a clean install, select **Install new system folder**. This installs a new system folder and renames your current folder to **Previous System Folder**. At this point you can transfer any items from your old system folder to your new one. 🍏

MAE: Frequently Asked Questions – Part 1

By Fred Widmer

This multi-part article provides answers to the most frequently asked technical questions about the Macintosh Application Environment (MAE). This part covers installation and setup, performance, customizing, and support.



Installation and Startup

After installing and running MAE for the first time, a window stating “Rebuilding the Desktop” appears. This can last for a very long time. What should I do?

Building a desktop over a large file system or one with NFS mount points generally takes a long time and can use up a fair amount of disk space. These are the directories that MAE scans, in order:

- System Folder
- appledir
- Home directory (This scan removed in patch “a”)
- Directory specified by APPLEPATH environment variable

It is best to allow the rebuild of the System Folder and appledir directories (which should be short) but it is not

necessary to rebuild the **HOME** or **APPLEPATH** directories, so you can go ahead and cancel those rebuilds at any time by clicking the **Stop** button.

What is the APPLEPATH environment variable used for?

The **APPLEPATH** environment variable is used to force MAE to scan a particular directory during a desktop rebuild (which is done whenever a System Folder is created or when MAE is started with the **-rebuild** command line argument). This is useful when a number of Macintosh applications are located in a directory shared by several MAE users.

Forcing MAE to scan this application directory causes the appropriate application to launch whenever one of its documents are double-clicked.

Does MAE pose a limit on how many UNIX environment variables can be defined at startup?

No. However, the total size of all defined environment variables should not exceed 35K (35,000 characters).

MAE complains that it can’t connect to my X-Window display. What should I do?

If you are running MAE on the same workstation that you are running the X-Server, you can set your **DISPLAY** environment variable to be **local:0** and it should work. If you are running MAE on a different machine than the X-Server, then you should set your **DISPLAY** environment variable to be the machine name the X-Server is running on with a **:0** appended, such as **my_machine:0**. If MAE still does not open the display, run the program **xhost** on the X-Server machine.

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For example, if MAE is running on a workstation named **my_workstation**, and the X-Server is on an machine named **my_terminal**, then on **my_terminal** run the command **xhost +my_workstation**, which lets MAE on **my_workstation** open a display on **my_terminal**.

Note that the command line argument **-display <dp>** overrides the **DISPLAY** environment variable.

When I first start up MAE 1.0 after installing, I get the splash screen, the 'Welcome to Macintosh' window, and then a system error. What's wrong?

There is an incompatibility between MAE 1.0 (commercial and trial versions) and the number of groups associated with a user under Solaris and HP-UX.

Note: This problem has been fixed in MAE patch "a" and MAE Trial version 1.0a.

The symptom of the problem is a Macintosh "bomb box" alert indicating that a bus error has occurred. This alert shows up just after the "Welcome to Macintosh" dialog displays. The restart button in the dialog is ineffective, and you must manually kill the MAE process to recover.

The cause of this problem is related to the supported number of groups that the user's login ID is affiliated with. Solaris 2.3 supports a maximum of 16 groups and HP-UX 9.x supports a maximum of 20 groups. MAE limits the number of groups to 8. Therefore whenever you attempt to run MAE with more than 8 groups you get the "bomb box" described.

The workaround to this problem is to avoid running MAE when logged in as a user with more than 8 groups. This can be done by either deleting unneeded group associations from your normal user ID, or creating a new user ID with 8

or less group associations for the purpose of running MAE. A permanent fix for this problem will be available in an upcoming patch release.

You can determine the number of groups defined for a user by entering the command **groups**. To change the supplemental group affiliations, edit the **/etc/group** file (you must be super-user to do this). See your system administrator (or your system administration manuals) for more information about user IDs and group associations.

Performance

Can MAE be run as an X Application over the network?

Yes. However, MAE was optimized to run as a local application and be displayed on the local workstation console. While MAE is certainly an X application and can be run remotely, it is graphics-intensive and may run significantly slower over the network. MAE performance is highly dependent on the X server, X client, and network bandwidth/traffic.

Can I increase the performance of MAE when using a remote X-Client over the network?

Yes. Changing the Monitors Control Panel to "Black and White" reduces the amount of data sent over the network to the X-Client. This can make a significant difference when running remotely, especially with graphics intensive applications.

Will my performance be affected if my HOME directory is located on a remote volume.

Absolutely. The **System Folder**, which contains the Macintosh toolbox and operating system, is built in your **HOME** directory when you start MAE for the first time. Performance is affected since

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the code in this folder must be executed to run MAE and it runs more slowly when the System Folder is located on a remote volume.

Can I run MAE with my HOME directory physically located on a machine running SunOS 4.1.x and NFS mounted to a Solaris 2.3 workstation running MAE?

Yes, but be careful with your permissions. Performance may also be significantly affected.

How many licensed users can run MAE from the same shared workstation?

As stated before, MAE is very graphics intensive and, depending on the applications, network, and X hardware/software used, your performance could be severely affected. For optimum performance, Apple recommends one MAE user per workstation with the console used for display.

Opening a folder sometimes takes a long time. Why is that?

When MAE opens a folder it must build a list of all files in that directory. In addition, the file type of each file must be identified ("stat'ed") in order for the proper icon to be displayed in the Finder window. This can take some time if there are hundreds of files in the directory.

A delay may also occur if you have automounter running and there are several mount points within the directory being opened. In this case, when MAE "stats" the mount point, the automounter will attempt to mount the filesystem.

Customizing

What are the command line arguments for MAE?

Usage: **apple/bin/mae [-argument...]**

This table lists the arguments:

ARGUMENT	DESCRIPTION
-display <dpy>	Name of the X server to display MAE. Example: -display my_xterm:0
-geometry <WxH+X+Y>	Size and location of window. Example: -geometry 600x800+200+200
-title <string>	Title for X window. Example: -title My_MAE_Window
-sysfol <path>	System Folder path. Example: -sysfol "/u/jim/ System Folder"
-appledir <path>	Location of the apple directory. Example: -appledir /usr/opt/apple
-memory <memorysize>	Macintosh memory size in megabytes (m = megabytes, k = kilobytes). Example: -memory 10m
-maxdepth <bitdepth>	Set maximum frame buffer bit depth (1 bit == monochrome). Example: -maxdepth 8
-installcmap	Force the installation of X colormap (do not depend on window manager).
-iconic	Start MAE iconified.
-iconsleep	Start MAE iconified (same as iconic).
-noextensions	Startup MAE with no Extensions/INITs.
-rebuild	Rebuild MAE desktop database.
-zappram	Clear VPRAM settings.
-help	Display command arguments Help screen.
-version	Display MAE version number.

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Is there a way to permanently set the MAE command line arguments?

X resources have been defined for several of the command line arguments. Place the desired X resources and settings into file named **.Xdefaults** in your **HOME** directory. When starting MAE, it looks into your **.Xdefaults** file and sets the options accordingly.

ARGUMENT	X RESOURCE
-geometry	Mae.geometry
-title	Mae.title
-sysfol	Mae.systemFolder
-appledir	Mae.appleDirectory
-maxdepth	Mae.maximumDepth
-installcmap	Mae.installColormap
-iconic	Mae.iconic
-iconsleep	Mae.iconSleep

Here is a sample .Xdefaults file:

# X Resource	Sample settings
Mae.geometry	1200x800
Mae.iconic	True
Mae.title	"My MAE Window"
Mae.systemFolder	"/u/jim/System Folder"
Mae.appleDirectory	/usr/opt/apple
Mae.maximumDepth	1
Mae.installColormap	False

Alternately, you could type **xrdb -merge file** where **file** contains the resource settings. The difference is that **xrdb** sets options for all users on the X server, while **.Xdefaults** only affects one user.

IMPORTANT: Command line arguments override **xrdb**, which override the equivalent resources in **.Xdefaults**. To override **xrdb**, you can either delete the

resources from **xrdb** (in which case **.Xdefaults** is used) or use the command line equivalents.

Again, a resource in **xrdb** is used for every user that runs MAE on that X server. **.Xdefaults** settings are used whenever MAE is started by a particular user on an X server.

How do I increase the usable RAM for MAE applications?

There are two ways in which to do this. The first is by using the memory control panel (which makes the change permanent) and the second is by specifying a **-memory** argument on the command line (which lasts until MAE is restarted). For example, this command starts MAE with a RAM size equal to 10 megabytes:

```
$ ~/apple/bin/mae -memory 10m
```

When I start MAE on my SparcStation I get a message saying, "Not enough shared memory, using malloc..." How do I fix this?

When MAE notices that it is running on your SparcStation's local display, it attempts to enhance graphics performance by communicating with the X server using the "X Shared Memory Extension". For MAE to succeed at this, your Solaris kernel must be configured to support several large shared memory segments. If MAE is unable to obtain the shared memory it requires (based on the size and color depth of the MAE window), it falls back to a less efficient communications scheme based on large malloc'd X image structures.

To ensure that sufficient Solaris kernel resources are available to support efficient execution of MAE, Apple suggests adjusting the file **/etc/system** to include the following:

```
set shmsys:shminfo_shmmax=16777216
set shmsys:shminfo_shmseg=8
```

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These **shmsys** parameters should adequately cover most screen and color depth configurations and take affect after restarting your system.

IMPORTANT: Talk with your system administrator first before making any changes to this file. While it is unlikely that adjusting these parameters will have adverse effects on other software, Apple Computer does not support or take responsibility for any problems you may encounter.

Note: The only reason to make this change to your **/etc/system** file is if you get the "Not enough shared memory, using malloc..." message mentioned.

Is there Virtual Memory and if so, how does it work with UNIX?

MAE "thinks" virtual memory is turned off, however, it is running in a large

"malloc'ed" chunk of UNIX memory. So in fact, a 48 MB session of MAE could be run on a machine with only 16 MB of RAM and lots of swap space (but note that Apple highly discourages this).

Support

What about updates of MAE? Since this is a new product, can we expect updates to bug reports to be free?

Apple is putting together a "free patch" mechanism of incremental fixes at no charge. This will be done on an as needed basis (determined by Apple). Patches will be made available via anonymous ftp on server **ftp.support.apple.com** and also through the ARCHIVE mechanism of the mail server (send mail to **listproc@medraut.apple.com** with body text of **HELP** for more information on obtaining archives). 🍏

GeoPort Technology

By Tom Villhard and Charlie McCabe

GeoPort is a hardware and software communications architecture that has been optimized for computer-telephony integration. It has three main attributes:

- It lets any computer connect to any telephone (analog or digital, public or private), anywhere in the world. This means that users can connect not just to POTS (analog) lines, but also to the PBX lines typically found in most office environments.
- Once connected, it supports an arbitrary number of independent data streams up to a total bandwidth of 2MB/second.
- Unlike traditional asynchronous data communications (such as AppleTalk), GeoPort also supports isochronous data streams (such as real-time data

like voice and video), and provides the real-time Application Program Interfaces (APIs) necessary to hide the implementation details (such as which DSP and real-time OS) from both the recipient and the sender of the real-time data.

Examples of Use

Telephony Applications

- Auto dialing from within an application.
- Auto call logging and tracking for account billing purposes.
- Call screening and filtering (send some calls directly to voice mail).
- Send and receive a fax over a digital (PBX) line.

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- Voice and video conferencing – with multiple users.
- One phone number for voice mail, fax, or data connection.
- Remote retrieval of email, voice mail, and fax – from any telephone anywhere in the world.
- Low cost fax-back machine.
- Simultaneous voice and data, using any protocol (such as VoiceSpan or Radish)
- Software upgradeable “modem”.
- Echo-canceled speakerphone.

The GeoPort Telecom Adapter

The GeoPort Telecom Adapter gives you access to one of your Macintosh Quadra 660AV, Quadra 840AV, and Power Macintosh family built-in features: a 14.4 kbps (kilo bits per second) modem that uses the GeoPort technology and which includes fax send and receive capabilities.

The GeoPort Telecom Adapter serves as a line interface to standard (analog) telephone lines, and combined with the Quadra 660AV and Quadra 840AV computers' on-board Digital Signal Processor (DSP), it is capable of sending or receiving data at up 14.4 kbps and faxes at up 9600 bps (bits per second) utilizing the bundled Apple Express Modem/Fax software. The DSP is part of the PowerPC chip itself.

The Apple Express Modem and Express Fax Software is included with the GeoPort Telecom Adapter and supports the same interfaces currently used in conjunction with the PowerBook Express modems.

Data/Fax Transmission Standards Supported

- Command Set
Extended Hayes AT command set

- Data communications standards:

SPEED	STANDARD
14400	CCITT V.32 bis
9600, 4800 bps	CCITT V.32
2400 bps	CCITT V.22 bis
1200 bps	Bell 212A
1200 bps	CCITT V.22
300 bps	CCITT V.21
300 bps	Bell 103

- Group 3 Fax communications standards

SPEED	STANDARD
2400, 4800 bps	CCITT V.27 ter
7200, 9600 bps	CCITT V.29

- Error control
 - Full CCITT V.42 compliance
 - MNP Classes 2-4
- Data compression
 - CCITT V.42 bis (up to 4:1 compression)
 - MNP Class 5 (up to 2:1 compression)

Note: The preceding standards are supported by the GeoPort architecture built into the Quadra 660AV, Quadra 840AV, and Power Macintosh.

What's in the Box

The GeoPort Telecom Adapter, Getting Started With Your GeoPort Telecom Adapter manual, the Express Fax/Modem User's Guide, a length of telephone cord, and a floppy disk containing the Express Modem/Fax software.

Adapter Models

This table lists the GeoPort adapter models, which systems to use them

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with, and which versions to use outside the United States:

Model	System	International
M1694LL/A	Quadra 660 AV and 840 AV	No
M1694LL/B	Quadra 660 AV and 840 AV	Yes
M3127LL/A	Quadra and Power Macintosh	Yes

The GeoPort Express Modem Software

The Express Modem 1.5.2 READ ME file says you need GeoPort rev 1.2.1 or greater, which is provided with GeoPort disks for Quadra 660AV and 840AV computers. However:

- The Express Modem II Card is only available outside of the U.S. on PowerBook 500 Series computers.
- Macintosh 660AV, and 840AV computers using an external GeoPort Telecom Adapter should use GeoPort 1.2 software; not GeoPort 1.2.1, or Express Modem For PowerBook 1.5.2.
- Power Macintosh computers using an external GeoPort Telecom Adapter should use GeoPort For Power Macintosh 1.0 software; not Express Modem For PowerBook 1.5.2.

What You Should Use

- With the PowerBook 100, 200, 500 Series, and Macintosh LC 575 computers, you should use Express Modem 1.5.2 software.
- With Quadra 660AV, and 840AV using an external GeoPort Telecom Adapter you should use GeoPort 1.2 software.
- With Power Macintosh computers using an external GeoPort Telecom Adapter you should use GeoPort for

Power Macintosh 1.0 software.

Common Questions and Answers

What is the maximum number of addresses that the same fax can be sent to simultaneously using the GeoPort for Power Macintosh (version 1.0) software?

Testing showed the Send To field can hold up to 145 recipients, although there is no specifically defined limit.

What is the ringer equivalence and ring signal frequency range of the GeoPort Adapter?

The Ringer Equivalence Number (REN) for the GeoPort Adapter is 0.7. In most areas, the total of the RENs of all devices connected shouldn't exceed 5.0. Contact your local phone company to determine your local maximum. Exceeding the recommended maximum can cause unreliable operation of all devices on the line. In other words, if a call comes in, all of the devices may not ring or detect the call.

The GeoPort Adapter uses a ring frequency range from 14 Hz to 1200 Hz (wider than required by FCC Part 68).

Why does the GeoPort sometimes connect to a service and immediately disconnect?

Make sure you are using the software that comes with the GeoPort Telecom Adapter. The Express Modem Software 1.1.2 is compatible, but there's much more software installed by the GeoPort Express Modem Installer than by the normal one. Software installed includes the Shared Library Manager, ASLM Resources, GeoPort Extension, GeoPort Telecom Adapter, and GeoPort Telecomm. Without these files, you can't use the GeoPort Telecom Adapter.

If you installed the proper software and still experience problems with

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The Technical Information Library

By Charlie McCabe

What is the Technical Information Library?

This magazine frequently refers to the Technical Information Library (TIL) and often includes articles from the TIL.



**Technical Information Library
to the rescue!**

The Apple Technical Information Library is Apple's official technical support database. It contains approximately 5,000 articles on all aspects of Apple products, past and present. It is updated daily with new information and is the same database that Apple employees use to answer your questions via the Apple Assurance 1-800-SOS-APPL telephone number.

Where You Can Find the TIL

A subset of the TIL is now available to anyone through these online services:

eWorld

Located in the Quick Answers Area (shortcut: **tech info**) in the Apple Customer Center.

CompuServe

Located in the Apple Tech Info area (**go aptil**).

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disconnects or aren't connecting at all, try turning off error correction. You can do this with the modem command **&Q0** in the modem string.

What is the difference between the modem port on a Macintosh and the GeoPort?

There are two primary differences:

- The standard modem port has connectors (pins) for in and out signals, timing, and handshaking. The GeoPort adds a ninth pin for power to an external device.
- The GeoPort also takes advantage of the power of the processor (either the

DSP processor in the Macintosh AV computers or the PowerPC chip itself) to do telephone – either data or fax, or even voice. A modem is just a line interface to the telephone wire, a DSP to create the tones used, and software to run it. The DSP is on the motherboard, an inexpensive line interface (like a GeoPod Telephone Adapter) can be used, with software to run the modem.

This makes it cheaper to add a modem to a machine, and makes it easy to enhance the modem through software to increase performance or to accommodate new standards. 🍏

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AppleLink

Located in the Support Area.

The Internet

Maintained in two locations:

- **info.hed.apple.com** (Home Gopher Server)

Path: **Home Gopher Server** → **Computer Information** → **Apple Tech Info Library**

- **info.apple.com**

Searching the TIL

Searching with Keywords

Use the pull down menus to select from a list of keywords. Both lists have the same keywords. You can use one or both of these keyword lists. It is not necessary to choose the same keyword in both lists. If the keywords do not describe what you are searching for choose "No Keyword".

Entering Text Queries

You can search the TIL by simply typing in a word or phrase and then clicking the **Search** button. A list of all articles that contain the word or phrase you entered displays in a scrolling field. You can then double-click on an individual title to view the article.

- Spell correctly
To ensure a complete search, it is important to spell correctly. Products are indexed into the TIL by their full name. Capitalization and trademark symbols are not necessary.
- Use full product names
When making searches, it is important to use the full product name. For a complete listing of all Apple product names, see the Apple Computer, Inc. Trademark List. This can be located by searching the TIL using "trademark list" as the search information.

- Use full search phrases when appropriate

It is possible to use a full search phrase when searching the TIL. For example: searching for "color stylewriter pro" finds all articles that contain the exact phrase "Color StyleWriter Pro".

- Searching Tips

Use operators such as **AND**, **OR**, or **NOT** between words to expand or limit your search. For example, typing in "PowerBook and Printer" gives you a listing of all articles that contain the words PowerBook and Printer. anywhere in the document. If you're looking for information on toner cartridges for a LaserWriter, typing the search string "laserwriter and toner or cartridge" finds every document that includes the words LaserWriter and toner or the words LaserWriter and cartridge. 🍏

Tips and Tidbits

Where to Find the 1984 Quicktime Movie

Try this address between 8:00 pm and 6:00 am Central Standard Time:

<ftp://csc.ucs.uwplatt.edu/Quicktime/1984/>

The total file is 13.9 megabytes though it's split into five StuffIt segments of about 2.9 megabytes each. Be sure to ftp it in Binary mode, not the usual default of ASCII. This site has several other popular Quicktime movies including a recent Saturday Night Live "Newton" commercial. 🍏

What QuickDraw GX Can Do For You

By Mark Hansen

You may be wondering if there is any benefit to running QuickDraw GX with applications that do not explicitly support it. QuickDraw GX improves all-around the printing system on the Macintosh. This works for old as well as new GX-savvy applications.



Some things that you can do without ANY upgrades to your applications:

- Create and use desktop printers.
- Eliminate the need for the Chooser when switching printers.
- Do drag and drop printing of existing documents onto printers.
- Create Portable Digital Documents, which let you view and print documents created on other computers, even if you don't have the original application OR the original fonts. (And when you print the document the actual fonts and outlines and hints are used so that your output looks exactly as it would on the original person's machine).
- Use background printing for all drivers.
- Employ better memory management on PostScript devices – no more need for “unlimited downloadable fonts”.
- Print everything – with no differences between drivers and what comes out on one but not another (for example, text rotation PicComments).
- Employ full color and grayscale support for all appropriate output devices.
- Handle printing control entirely through the Finder; no more PrintMonitor.
- Use printing extensions (two come bundled on the System 7.5 Personal and Multi-User Upgrade CD-ROM), both commercial and freeware/shareware that let you do things like 4-up printing, background washes, and other page-modifications without the application being involved.
- Use four new fonts. These fonts are much nicer with GX applications, but you can still use them from your old applications as well.
 - Hoefler (Roman, Italic, Ornaments)
 - Apple Chancery
 - Skia
 - Tekton
- Define and use PrinterSharing – you can share any printer (including non-network printers) with other people, and can have Users & Groups and password protection of the printer.
- Employ fully integrated ColorSync support, including support for PostScript device-independent color matching.

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- Take advantage of the full generation of PostScript Level 1, Level 2, portable PostScript, and optional ADSC-compliant PostScript. Use the built-in and fully-tested "save as PostScript" option in the driver. Use device-specified control over PostScript font embedding.
- Employ true support for outline fonts on all printers, including large glyph set fonts (such as Asian languages) with output at the full resolution of the device. This feature also provides fast download times through sparse font downloading.

While it is true that both GX and GX printing become even more interesting with new applications – it's not true to say that QuickDraw GX offers nothing until this happens. 🍏

Special Find Options in System 7.5

By Mark Hansen

The System 7.5 desktop Find command (⌘-F) lets you search for a variety of file attributes. There are four additional search options available under the first pop-up menu selection in the Find File dialog box. Hold down the **Option** key while selecting the "name" pop-up and you see these additional selections:

- contents
Find files containing a specific string or phrase (up to 30 characters)
- name/icon lock
Find all locked/unlocked files.
- custom icon
Find all files that either do or do not have a custom icon
- visibility
Find all visible/invisible files. 🍏

New Places to Find the Information Alley

You can now find the Information Alley on these on-line services and BBSs:

- **IMUG – Intermountain Macintosh Users Group** BBS (Salt Lake City, UT) – (801) 521-3278

8 bits, no parity, 1 stop bit.
TeleFinder Graphical Interface.
Supports ASCII or ANSI text interface. Username: **IMUG BBS**, Password: **Guest**.

- **Mobius – Savannah Macintosh Users Group** BBS (Savannah, Georgia) – (912) 231-9207

14,400bps

- **Capitol Macintosh: Austin's Macintosh User Group** BBS (Austin, Texas) – (512) 440-0025

FirstClass, 14.4 kbps, four lines.
For more information: (512) 479-8040. Internet: **info@capmac.org**

No guest logon required, users auto-register when they call for the first time. Currently callers must be a paid CapMac member to access downloadable files other than StuffIt Expander, Disinfectant, etc. 🍏

Tips and Tidbits

To find out about a Macintosh Users Group in your area, contact Apple's user groups liaison office at (800) 538-9696, extension 500.

They'll be happy to provide you with contact information for a local Macintosh user group. 🍏

What is PrintMonitor?

By Ed Rupp

The PrintMonitor application program included with Macintosh system software is an example of a background printer or spooler. Background spooler software runs on the Macintosh computer and temporarily stores, or spools, documents to be printed on the computer's hard disk. The computer must remain connected to the network until the print job is finished, but it can perform other tasks during that time.

The PrintMonitor program opens automatically whenever a user prints a document with background printing turned on. When a print command is issued, PrintMonitor spools the document to a file in the PrintMonitor Documents folder. It then waits for the selected printer to become available, establishes a network connection, and sends the document to the printer.

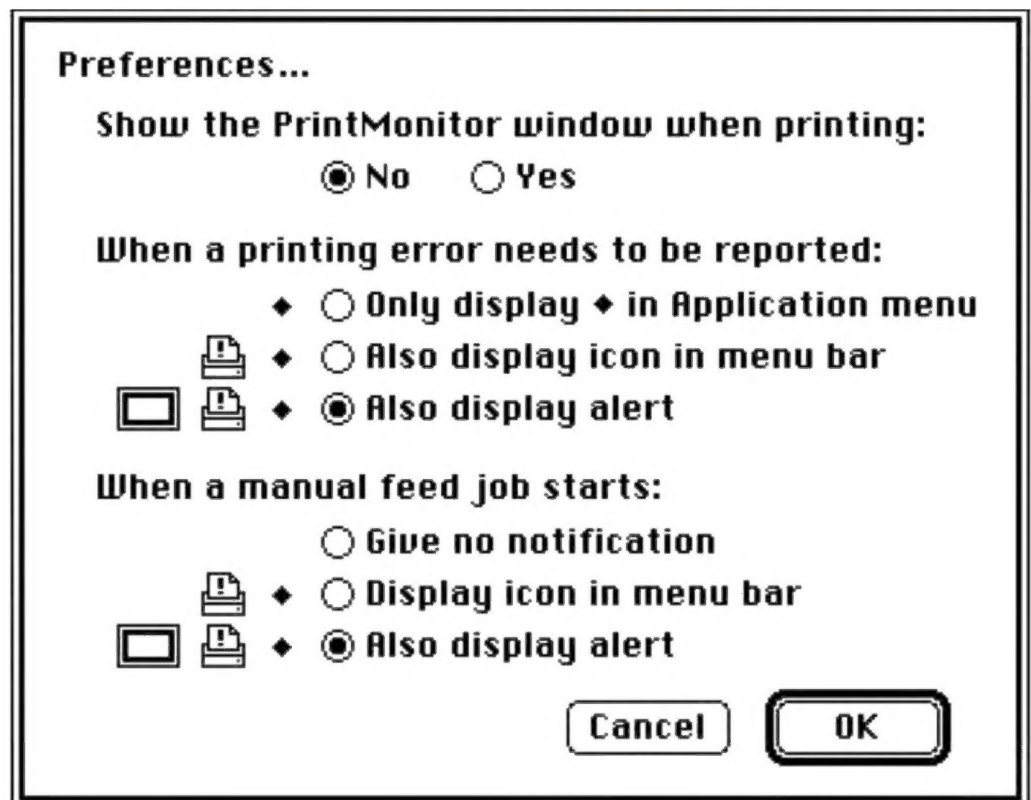
Aside from the convenience provided by PrintMonitor, it also provides you with additional management control in printing your documents. With PrintMonitor you can:

- See the name of the document that is currently being printed, the document's status (for example, how many pages still need to be

printed), and the name of the printer being used

- Cancel a document currently printing or waiting to print
- Specify a date and time to print a document or postpone a job indefinitely
- Monitor paper supply
- Signal when to feed paper manually

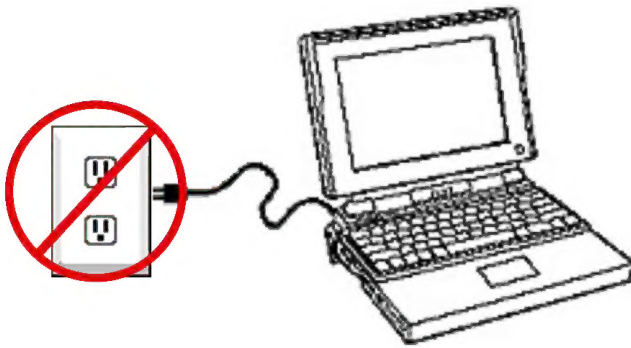
PrintMonitor's icon blinks at the right end of the menu bar when the printer is out of paper or to signal that you must confirm a manual operation. It can also be set to display an alert message. To change the notification method, use the program's Preferences command in the File menu. An example of the PrintMonitor Preference dialog box is shown below. 🍏



PowerBook Battery Charging Problem

By Jeff Mosqueda

A number of you have called Apple to report trouble charging your PowerBook 500 Series Intelligent Battery (M1908LL/A). Batteries that exhibit the problem typically have a very low charge out of the box. Since the power management features of new batteries depend on a minimum charge that is higher, PowerBook 500 series computers have difficulty recognizing the new battery and charging it.



The Apple Assurance PowerBook Support group has developed a series of troubleshooting steps (see the following table) that may work to get the PowerBook to recognize and charge the

battery, effectively fixing the problem.

STEP	ACTION
1	Put the questionable battery in the right hand compartment.
2	Remove the left hand battery.
3	Let PowerBook try and charge the one battery alone.
4	If the battery still does not charge Remove and reinsert the battery giving the PowerBook another chance to establish communication. After approximately 10 minutes the PowerBook gives up.
5	If charging symbol hasn't appeared in Control Strip by then pull the battery out and reinsert.
6	Repeat this series of steps at least 4 times.

If the PowerBook still does not recognize and charge the battery after these steps, the Apple Assurance PowerBook Support group will replace the battery using the Advanced Replacement process, which takes 3-5 business days due to a temporary delay while Apple takes steps to ensure all batteries are properly charged before shipping. 🍏

Tips and Tidbits

Adobe Illustrator 5.0

Hold down the **Option** key while selecting the Tool Description box (in the lower left portion of the working window); instead of the usual four choices, some new things appear: the number of shopping days until Christmas, the programmer's home phone number, a pair of eyes that watch the cursor, the phase of the moon, the number of mouse clicks since you opened the document, a random number, and so forth. [From The 1994 Macintosh/Newton Easter Egg List – Contributed by David Darrow and Richard Foley.] 🍏

SCSI Hard Drive Capacity

From the Technical Information Library
This article describes how to check the capacity of a SCSI hard drive attached to an Apple LaserWriter printer.

Checking SCSI Hard Drive Capacity

There are two ways to check the capacity of a SCSI hard drive attached to a hard-drive compatible Apple LaserWriter:

- Use a PostScript program (listed at the end of this article) to check the hard drive's capacity. This works with any hard-drive compatible LaserWriter.
- Connect the hard drive to a Macintosh. This only works if your hard drive is formatted in Macintosh-compatible format, as with the LaserWriter IIx, IIg, and the LaserWriter Pro 630.

Unfortunately, there is no option to check the capacity of any Laserwriter printer's hard drive in any version of Apple's LaserWriter Utility.

The LaserWriter II NTX, LaserWriter IIx and IIg, and the LaserWriter Pro 630 are all hard-drive compatible, but they use different types of hard disk formatting.

The LaserWriter NTX uses the LaserWriter Font Utility to initialize attached SCSI hard disk drive(s) as one logical disk device for the PostScript file system. The LaserWriter NTX regards all attached hard drives as a single logical unit, therefore these drives are not recognized by the Macintosh file system.

The LaserWriter IIx and IIg, and the LaserWriter Pro 630 use the LaserWriter Utility to initialize attached SCSI hard drives. This utility initializes the hard drive in a Macintosh compatible (HFS) format and supports the PostScript file system.

Here is a simple PostScript program that

displays the total and free space available on a LaserWriter's hard drive:

```
/Helvetica findfont 14 scalefont setfont
statusdict begin
30 100 moveto
(A page is 1024 bytes.) show
30 115 moveto
(The total number of pages are) show
diskstatus
10 string cvs show
30 130 moveto
(The number of free pages are) show
10 string cvs show
showpage
```

Cut and paste these 12 lines of code to TeachText and download the file with the appropriate utility. 🍏

Tips and Tidbits

Macintosh IIci and IIx

On the IIci, set the system date to 9/20/89 (the release date of the IIci), and set your monitor to 8-bit color. Restart while holding **⌘-Option-c-i**. You'll see a color picture of the IIci design team. Click the mouse to continue. (Other color settings might also work...)

On the IIx, set the system date to 3/19/90 (the release date of the IIx), and restart while holding down **⌘-Option-f-x**. You'll see a color picture of the IIx design team. Click the mouse to continue. (Interestingly enough, this is the same picture used in the IIci.) [Thanks to Jeff Home for details. © 1994 The Macintosh/Newton Easter Egg List compiled by Brian Kendig]. 🍏

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